

In the Claims

Please amend page 20, line 1 as follows:

Claims What is claimed is:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) NMR-based method comprising generating a NMR spectrum of a mixture comprising at least (i) one hyperpolarised ligand, a target and optionally at least one further ligand, or (ii) a hyperpolarised target and at least one ligand and comparing said NMR spectrum with a reference spectrum of the at least one hyperpolarised ligand or the hyperpolarised target.

2. (Currently amended) The NMR-based method according to claim 1 comprising
 - a) hyperpolarising at least one of said a ligand or said a target,
 - b) forming a mixture by contacting either the at least one hyperpolarised ligand with one of a target and a target and at least one further ligand, or the hyperpolarised target with at least one ligand,
 - c) generating a NMR spectrum of the mixture, and
 - d) comparing said NMR spectrum with a reference spectrum of the at least one hyperpolarised ligand or the hyperpolarised target.

3. (Currently amended) The mMethod according to ~~claims 1 and 2~~ claim 1, wherein at least one of the ligands is selected from the group consisting of proteins, glycoproteins, lipoproteins, polypeptides, glyco-polypeptides, lipopolypeptides, peptides, carbohydrates, nucleic acids or a part, a fragment or a complex thereof and small organic molecules.

4. (Currently amended) The mMethod according to ~~claims 1 to 3~~ claim 1, wherein at least one of the ligands is a small organic molecule of less than 2000 Da.

5. (Currently amended) The mMethod according to ~~claims 1 to 4~~ claim 1, wherein more than one hyperpolarised ligand is used.
6. (Currently amended) The mMethod according to ~~claims 1 to 5~~ claim 1, wherein the target is selected from the group consisting of proteins, glycoproteins, lipoproteins, nucleic acids, polypeptides, glycopolypeptides, lipopolypeptides, peptides or a part, a fragment or a complex thereof.
7. (Currently amended) The mMethod according to ~~claims 1 to 6~~ claim 1, wherein the at least one hyperpolarised ligand or the hyperpolarised target is an isotopically enriched ligand or target.
8. (Currently amended) The mMethod according to ~~claims 1 to 7~~ claim 1, wherein the at least one hyperpolarised ligand or the hyperpolarised target is selectively isotopically enriched at one or more sites in the molecule.
9. (Currently amended) The mMethod according to claim 8 wherein the at least one hyperpolarised ligand or the hyperpolarised target is selectively isotopically enriched at one site in the molecule with ^{13}C or ^{15}N .
10. (Currently amended) The mMethod according to claim 9 wherein the enrichment is a ^{13}C -enrichment.
11. (Currently amended) The mMethod according to ~~claims 1 to 10~~ claim 1, wherein the NMR spectrum generated is a one-dimensional NMR spectrum
12. (Currently amended) The mMethod according to ~~claims 1 to 11~~ claim 1, wherein the NMR spectrum generated is generated using low flip angles.

13. (Currently amended) The mMethod according to ~~claims 1 to 12~~ claim 1, wherein the comparison with the reference spectrum shows a chemical shift difference, a relaxation time difference or a NOE effect difference.

14. (Currently amended) A method of performing an NMR-assisted drug discover comprising the step of using one or more ~~Use of~~ hyperpolarised ligands and/or hyperpolarised targets ~~in NMR-assisted drug discovery.~~

15. (Currently amended) A method of performing a ligand competition assay comprising the step of using one or more ~~Use of~~ isotopically enriched hyperpolarised ligands ~~in ligand competition assays.~~